

### Specification Amendments

Please amend the Specification as follows:

Please correct Figure 1 using the replacement drawing sheet attached hereto.

Please replace the Abstract as follows:

--Structures and methods for non-intrusive testing of communication signals exchanged between two circuit boards via an intermediate interconnect board. In one aspect hereof, ~~test signals are exchanged between the two circuit boards without requiring active circuits on the interconnect board. In another aspect hereof,~~ the functional signal normally exchanged between the circuits is latched during the exchange of test signals and the latched functional signal is utilized within the circuit that normally receives the functional signal to continue normal operations. In another aspect hereof, the test signals are exchanged over a dedicated test signal path between the two circuits. In another aspect hereof, the test signals are exchanged over the functional signal paths as out of band signals.--

Please rewrite the second paragraph on page 1 as follows:

--Electronic devices often communicate with one another to cooperatively perform an intended function. Different functional components are sometimes implemented on distinct circuit boards that communicate with one another to provide the desired function. The distinct boards communicate over one or more defined signal paths. Often, an interconnect board connects multiple circuit boards to couple the signal paths, thereby facilitating communication between multiple circuits implemented on separate boards. For example, a bus back-plane may be used to interconnect defined signals between two or more circuit boards coupled to the back-plane interconnect board. Discrete control lines and discrete status lines implemented on the interconnect board interconnect the multiple circuits. Discrete control and status lines may serve as reset signals, watchdog, and in-place signals, among other purposes. In-place signals may allow processing elements on each board to determine whether other systems contain alternate processing elements. Reset signals may allow

each circuit board to reset the alternate circuit board to a known state if other communication paths fail. Watchdog signals may be used between circuits to allow one circuit to monitor the operation of the other circuit.--

Please rewrite the second full paragraph starting at line 13 of page 7 as follows:

--Figures 4 and 5 provide another exemplary system and associated method of operation embodying features and aspects hereof. Figure 4 illustrates test system 400 including first circuit board 401 and second circuit board 402[.] coupled by signal path 406 through interconnect board 407. System 400 provides additional details of an embodiment hereof but simplifies the system 400 by depicting and discussing testing of interconnect signals only by first circuit 401. Those skilled in the art will readily understand that the structure and operation may be mirrored to provide testing performed by the second circuit 402.--